

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

APPLICATION BRANCH

KAREL VAN DEN BERG ET AL

Serial No.: To Be Assigned

Filed: Herewith

For: AN IMPLEMENT FOR AUTOMATICALLY DETACHING AND DISPLACING
AN AMOUNT OF FEED, SUCH AS, FOR EXAMPLE, SILAGE OR HAY

PRELIMINARY AMENDMENT

To the Honorable Commissioner
of Patents and Trademarks
Washington, D.C. 20231

Sir:

This Preliminary Amendment is for the above-identified Application which is being filed under 35 U.S.C. §111(a). Priority of June 9, 2000 is claimed based on Dutch Patent Application No. 1015403, which was filed on that date.

IN THE SPECIFICATION:

A Substitute Specification is submitted herewith. It is requested that the Substitute Specification be substituted for the original Specification submitted herewith. No new matter has been added to the Substitute Specification. A marked-up copy of the original Specification of the invention is submitted herewith for comparison purposes.

IN THE CLAIMS:

On page 7, immediately following the heading "CLAIMS", please insert --Having disclosed our invention, what we claim as new and to be secured by Letters Patent of the United States of America is:--.

Please cancel all claims except Claims 1 and 2 without prejudice.

Please add the following claims:

J Claim 22. An apparatus for automatically detaching and displacing feed for animals which comprises a container for said animal feed, an animal feed stand for receiving said animal feed from said container and for accommodating an animal to consume animal said feed, a robot arm which is constructed and arranged to move said animal feed from said container to said animal feed stand, said robot arm comprising detaching means for detaching part of said animal feed from said animal feed in said container and displacing means for selectively displacing said so detached part of said animal feed to said animal feed stand and depositing it there.

J Claim 23. An apparatus in accordance with Claim 22, wherein said detaching means comprises a gripping element.

J Claim 24. An apparatus in accordance with Claim 22, wherein said detaching means comprises a bucket.

J Claim 25. An apparatus in accordance with Claim 22, wherein said detaching means comprises a shovel.

J Claim 26. An apparatus in accordance with Claim 22, wherein said detaching member comprises closure means.

J Claim 27. An apparatus in accordance with Claim 22, wherein said robot arm comprises cleaning means for cleaning said detaching means.

Claim 28. An apparatus in accordance with Claim 22, wherein said robot arm comprises brushing means for brushing substances from said detaching means.

Claim 29. An apparatus in accordance with Claim 27, wherein said cleaning means comprises a sweeping element.

Claim 30. An apparatus in accordance with Claim 28, wherein said brushing means comprises a sweeping element.

Claim 31. An apparatus in accordance with Claim 22, which comprises metering means that provides that said part of said animal feed comprises a predetermined measured-out portion of said animal feed which is detached by said detaching means.

Claim 32. An apparatus in accordance with Claim 22, which comprises weighing means for weighing said part of said animal feed which has been detached by said detaching means.

Claim 33. An apparatus in accordance with Claim 22, wherein said robot arm comprises weighing means for weighing said part of said animal feed detached by said detaching means.

Claim 34. An apparatus in accordance with Claim 22, comprising animal identification means for identifying an animal in the immediate vicinity of said feed stand for the purpose of consuming said animal feed received therein.

Claim 35. An apparatus in accordance with Claim 34, wherein said animal identification means is mounted on said robot arm.

Claim 36. A apparatus in accordance with Claim 22, wherein said feed stand comprises a trough.

Claim 37. An apparatus in accordance with Claim 22 in which said animal feed consists essentially of at least one of the following components: solid composites, a concentrate, silage, hay, fodder, a liquid including water or any mixture of the foregoing.

Claim 38. An apparatus in accordance with Claim 37, which comprises a further container that contains one of said components which is different from the component in said first mentioned container.

Claim 39. An apparatus in accordance with Claim 22, wherein said robot arm is disposed above said animal's feed stand.

Claim 40. An apparatus in accordance with Claim 22, wherein said robot arm is disposed above said container.

Claim 41. An apparatus in accordance with Claim 22, wherein said robot arm is disposed above said animal feed stand and said container.

Claim 42. An apparatus in accordance with Claim 22, which comprises a chute via which said animal feed can be discharged to said animal feed stand.

Claim 43. An apparatus in accordance with Claim 22, wherein said detaching means performs at least one function consisting of the following functions: the function of moving above the bottom of said container or the function of moving along the bottom of said container or the function of moving into said animal feed stand or any combination of said functions.

Claim 44. An apparatus in accordance with Claim 22, which is supported on a floor, said robot arm being movable above said floor.

Claim 45. An apparatus in accordance with Claim 44, which comprises a rail which is disposed over said floor, said robot arm being movable along said rail.

Claim 46. An apparatus in accordance with Claim 22, which comprises a transport vehicle, which is movable between said container and said animal feed stand, said transport vehicle cooperating with said robot arm.

Claim 47. An apparatus in accordance with Claim 46, which comprises a rail, said transport vehicle movable along said rail.

Claim 48. An apparatus for automatically detaching and displacing animal feed for consumption by animals which comprises a plurality of containers, each said container containing a different animal feed, a plurality of troughs for receiving said animal feed from said containers, a robot arm which is constructed and arranged to move said animal feed from at least one of said containers to at least one of said troughs, said robot arm comprising detaching means for detaching a portion of said animal feed from said animal feed in said one container and displacing means for selectively displacing said portion of animal feed to said trough and depositing said portion in said trough, said detaching means essentially consisting of a gripping element or a bucket or a shovel.

IN THE ABSTRACT:

In lieu of the Abstract set forth on page 10 of the original Application, please substitute the Abstract of Disclosure appended hereto.

REMARKS

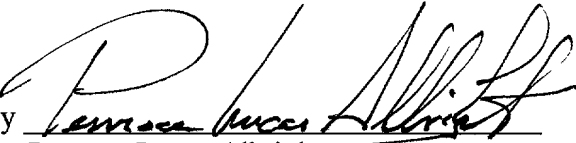
The purpose of this Preliminary Amendment is: (1) To provide a Substitute Specification and an Abstract which are in formats customary for U.S. patent applications and which are also expressed in less stilted and more readable idiomatic English; (2) To amend the claims of this Application to eliminate multiple-dependent claims therefrom; (3) To establish a filing fee; and (4) To amend the claims so that they are more nearly in a style and formats customary for U.S.

patent applications. It is to be understood, nevertheless, that the claims originally set forth remain part of the original disclosure of the Application.

As amended, the Application has twenty-nine (29) claims, three (3) of which are independent claims. Accordingly, a filing fee of \$436.00 appears to be required and our check to cover same is submitted herewith. If this is in error, the Commissioner of Patents and Trademarks is authorized to debit or credit our Account No. 13-2000 as appropriate.

Respectfully submitted,

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ABSTRACT OF THE DISCLOSURE

An apparatus which comprises a plurality of containers for animal feed which includes silage, hay, fodder, or a liquid including water or any mixture thereof. The plurality of containers are for different feeds and a plurality of troughs are provided to which feeds from the containers are selectively transferred by robot arms which are computer-controlled based on the identification by an identification sensor of the animal that will next feed at the trough involved. The robot arm may include a gripping element or a bucket or shovel which include closing members. The containers may be disposed above the troughs and a chute may be provided which receives feed from the robot arm which flows through the chute to the trough. The robot arm automatically detaches a portion of the feed from feed stored in one or more of the containers and displaces same either via the chute or directly into the trough. Also the robot arm may move feed from selected containers at one side of the troughs onto a transport vehicle which is movable along a rail to transport feed to a selected trough or troughs.

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